



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,139	10/22/2003	Manish Sharma	200209629-1	4964

22879 7590 12/30/2005

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

GOUDREAU, GEORGE A

ART UNIT	PAPER NUMBER
----------	--------------

1763

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,139

Applicant(s)

SHARMA ET AL.

Examiner

George A. Goudreau

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 19 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18, and 20-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

George A. Goudreau
GEORGE GOUDREAU
PRIMARY EXAMINER

12-051

1. Applicant's election with traverse of the method claims in the reply filed on 11-3-05' is acknowledged. The traversal is on the ground(s) that the device, which is claimed by the applicant, cannot be made using a different method than that which is claimed by the applicant as is purported by the examiner. Thus, restriction between the device, and the method for making the device claims by the examiner is improper. This is not found persuasive because the device, which is claimed by the applicant, can be made by a different method than that which is claimed by the applicant contrary to what applicant purports. The examiner has cited of record references which teach the device which is claimed by the applicant but use a different method for making the device than that which is claimed by the applicant. The device claims may therefore be restricted from the method claims.

The requirement is still deemed proper and is therefore made FINAL.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1763

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-18, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et. al. (6,683,815).

Chen et. al. disclose a process for fabricating a nonvolatile memory array which comprises a plurality of magnetic memory structure with each of the magnetic structures having different-sized memory cell layers. In figure 4, one embodiment is illustrated in which a laminate structure is formed of an upper magnetic layers (24)/ a non-magnetic layer (26)/ a lower magnetic layers (28). The upper magnetic layer (24) is a free magnetic layer (i.e.-a data layer) while the lower magnetic layer (28) is a pinned magnetic layer or fixed magnetic layer (i.e.-a reference layer). The non-magnetic layer (26) acts as a spacer layer. The upper magnetic layer is made with a smaller area than the lower magnetic layer such that a step shaped structure is formed. They disclose that any of a variety of different etching methods may be employed to fabricate this step shaped laminate structure including those methods which employ wet and/or dry etching processes. They further disclose that the lower portion of the laminate may be

formed prior to forming the upper portion of the laminate. (This is the same method, which is claimed by the applicant.) This is discussed specifically in columns 15-16; and discussed in general in columns 1-24. This is shown specifically in figure 4; and shown in general in figures 1-8. Chen et. al. fail, however, to specifically disclose the following aspects of applicant's claimed invention:

- the specific usage of the types of etching masks, which are claimed by the applicant to conduct the specific etching, processes which the applicant claims

It would have been obvious to one skilled in the art to employ any of the etch masks which are claimed by the applicant to form the structure taught above based upon the following. The usage of the specific types of etching masks, which are claimed by the applicant to conduct an etching process, is conventional or at least well known in the etching arts. (The examiner takes official notice in this regard.) Further, applicant states in their response to the examiner's restriction requirement that the usage of the different types of etch masks which they claim to conduct their etching process simply represents the usage of obvious variants in the etching arts for providing an etch mask. Similarly, applicant states that the usage of an isotropic etching process versus an anisotropic etching process to form their claimed structure simply represents the usage of obvious variants in the etching art for performing an etching process. Thus, it would have been obvious to one skilled in the art to utilize the specific etching process, which is claimed by the applicant to form the specific structure, which is claimed, by the applicant.

Art Unit: 1763

5. Claims 2, and 20-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

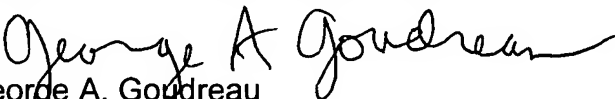
-In claim 2, the term "hardmask" should read "hard mask".; and

-In line 4 of claim 20, the term "later" should read "layer".

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication should be directed to examiner

George A. Goudreau at telephone number (571)-272-1434.


George A. Goudreau
Primary Examiner
Art Unit 1763